

REMARKS

The claims have been rejected, separately, over each of Fetters, Butz, and Choi. Applicant has amended the claims, and submits that the claims are allowable, for the following reasons.

The patent to Fetters shows a device which directs air through a tube 14 located near a perforated sheet. The air flows upwardly through the tube, and becomes mixed with solid material. When the air flows upwardly through the tube, it does not pass through any perforations; to the extent that any air flows through the perforations, it could only do so while flowing downwardly.

The present invention, by contrast, provides a gas scrubber in which the gas flows upwardly through a perforated sheet. Substantially all of the gas flows through the perforations, from a lower region, below the sheet, to an upper region, above the sheet. It is this upward flow of gas, in the present invention, which induces the pressure difference that causes the perforated sheet to become flooded by liquid that rises from the reservoir.

All of the independent claims (Claims 1, 12, 13, 17, and 19) have been amended to emphasize the above difference. For example, Claim 1 now recites that the perforated sheet is positioned such that substantially all fluid flowing from the inlet channel passes through the sheet, from below to above. Similar amendments have been made to the other independent claims. The claims all now require that the fluid flow upwardly as it passes through the sheet.

All of these claims now define a structure or method in which the

incoming gas is forced to flow through the perforated sheet, from bottom to top. This claimed arrangement is not found in Fetters, in which the only gas flow through the perforations is the downward flow of gas, in chamber 10.

Therefore, Applicant submits that the above-identified claims distinguish patentably over Fetters.

The independent claims have also been rejected over Butz. Butz shows a wet gas scrubber, but teaches the use of weirs, or dams, located above the perforated sheet. These weirs are clearly shown, but not explicitly labeled, in Figure 1. They are also recited in Claim 1 (column 3, lines 45-48).

The scrubber of the present invention has no weirs. The perforated sheet of the present invention is substantially flat, and the region above it is unobstructed by weirs.

A dam or weir is undesirable, in the context of the present invention, because a weir skims off clear water, and tends to concentrate solids in the crevices defined by the weir. That is, particulate matter tends to become stuck in a weir, and is not carried off with the water, as is intended.

All of the independent claims have been amended to exclude the weirs shown in Butz. For example, Claim 1 now recites that the outlet (upper) area of the perforated sheet is free of any barrier. This terminology means that in the present invention, there can be no weir in the region immediately above the perforated sheet. The other independent claims use equivalent terminology, namely that the upper region is substantially unobstructed.

The weir of Butz is necessary to the operation of the device shown in

the reference. Thus, it would not be obvious to remove the weirs shown in Butz.

Applicant therefore submits that the independent claims define patentably over Butz, because the claims exclude the possibility of weirs.

The Examiner has also rejected some of the claims over Choi. But, like Butz, Choi also shows weir 152. The pending claims now recite a perforated sheet that is not obstructed by any weir. Thus, the claims define a structure and method that is not shown or suggested by Choi.

The claims not specifically mentioned above depend, directly or indirectly, from the independent claims, and are therefore also believed allowable.

Applicant therefore submits that all of the claims, as amended, are in condition for allowance. Applicant requests reconsideration by the Examiner and early favorable action.